UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,197	12/05/2003	Michael Twerdochlib	2003P13557US	2422

7590 09/27/2004

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
DUPUIS, DEREK L	

ART UNIT	PAPER NUMBER
2883	

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/729,197	TWERDOCHLIB, MICHAEL	
	Examiner	Art Unit	
	Derek L Dupuis	2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☒ Claim(s) *1,4,6-8,11,14,15 and 17-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 December 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/05/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 6 in Figure 1, 52 and 58 in Figure 3, and 82 in Figure 4.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the device with fewer electrical outputs than electrical inputs that is located outside of the generator as claimed in claim 8, and the multiple seals that share originating and receiving tasks in claim 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

4. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s)

should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: "where direct a electrical connection" in line 10 of paragraph 8 is improper. The wording "carried back to a detector the seal to at the seal" in lines 8 and 9 of paragraph 22 is improper. The wording "for from" in line 5 of paragraph 24 is improper. The wording "-18/+18 volts" in paragraph 24 should be written "-18 to +18 volts" for clarity and so not to be confused with a division operation. The wording "all fiber optic cable" in line 2 of paragraph 33 should apparently read "all fiber optic cables". The wording "return to" in line 3 of paragraph 33 is improper because the term "return" implies that the fiber optic cable was present at the location at a previous time. The sentence explains that the fiber optic cable originates at one seal and runs to a different seal where it is converted into an electrical signal. Therefore, in the context of the sentence, the term "return" is improperly used. The wording "to different seal" in line 3 of paragraph 33 should apparently be "to a different seal". The term "signal" in line 4 of paragraph 33 should apparently be in the plural form. The wording "In other embodiment" in line 4 of paragraph 33 should apparently be "In another embodiment". The wording "will be routed to one once vibration detection signal has been produced" in lines 5 and 6 of paragraph 33 should apparently read "will be routed to the seal once a vibration detection signal has been produced". The term "heretically" in line 3 of paragraph 37 should apparently be "hermetically".

Appropriate correction is required.

Claim Objections

6. Claim 1 is objected to because of the following informalities: the limitation "at a location is internal" in line 3 of the claim should apparently be "at a location internal".

7. Claim 4 is objected to because of the following informalities: the limitation "detector preamplifiers" should apparently be "detector preamplifies".

8. Claims 6-8, 14, 15, and 17-19 objected to because of the following informalities: the claims are missing a period at the end.

9. Claim 11 objected to because of the following informalities: the limitation "an fiber optic cable" in line 4 of the claim should apparently read "a fiber optic cable".

10. Claim 19 is objected to because of the following informalities: the limitation "at least device" is assumed to be "at least one device".

11. Appropriate correction is required.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "a reducer at least one wire to at least one fewer wire" is incoherent and therefore renders the claim indefinite.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 1, 3, 5, 10, 11, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Miller (PN 4,321,464),*** and further in view of ***Jenkins et al. (PN 5,684,718),*** and further in view of ***Gabrys et al. (PN 6,624,542)***.

16. With regard to claim 1, Miller teaches a method for converting a fiber optical signal to an electrical signal inside of a generator. Miller teaches the use of a vibration sensor that includes a fiber optic transmitter (see column 1, lines 63-65 of Miller). A vibration optic sensor is connected to the fiber optic transmitter to provide a vibration magnitude signal. This signal is sent along a receiving optical fiber (see column 2, lines 3-7 of Miller). The vibration magnitude signal is converted into an electrical signal (see column 2, lines 26-36 and column 5 line 63 to column 6 line 11 of Miller). It is inherent and well known in the art that electrical signals are sent on electrical wires. Miller does not teach that the fiber optic transmitter and the vibration magnitude signal are internal to the generator. Jenkins teaches the use of a vibration sensor including a fiber optic transmitter and a vibration magnitude signal that are internal to the generator. It would have been obvious to one of ordinary skill in the art at the time of invention to have the fiber optic transmitter and the vibration magnitude signal taught by Miller at locations internal to the generator as taught by Jenkins. Motivation to do this is the reference by Jenkins to use the vibration sensor of Miller (PN 4,321,464) (see column 2, lines 35-51 of

Jenkins). Neither Miller nor Jenkins teaches that the electrical signal is exported from the generator by a hermetic seal nor that the environment internal to the generator is at a greater pressure than the environment outside of the generator. Gabrys teaches that environment internal to the generator is at a greater pressure than the environment outside of the generator. Gabrys also teaches that the electric wires with an electrical signal are exported from the generator via a hermetic seal (see column 4, lines 47-49and Figure 2 of Gabrys). It would have been obvious to one of ordinary skill in the art at the time of invention to use the method of exporting wires via a hermetic seal as taught by Gabrys on the electrical signals from the vibration sensor internal to the generator as taught by Miller in view of Jenkins. Motivation for doing this is that a hermetic seal can keep a pressurized vessel sealed while allowing signals to be passed through a wall of the vessel. Jenkins suggests that the electrical signals inside the generator can be fed to a data processor, possibly a computer (see column 2, lines 35-51 of Jenkins). Using a hermetic seal is a well known method of connecting a signal internal to a sealed vessel to a device outside of a sealed vessel.

17. With regard to claim 3, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal inside of a generator as discussed above in reference to claim 1. Miller also teaches that vibration magnitude signal can be converted to an electrical signal at a detector (see column 5, line 62 to column 6, line 11 of Miller).

18. With regard to claim 5, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal inside of a generator as discussed above in reference to claim 1. Jenkins also teaches the method of combining the

electrical wire with at least one additional electrical wire into a device, wherein the device has fewer electrical wire outputs than inputs and wherein the signals on the electrical wires inputs can be monitored by the electrical wire outputs (see column 2, lines 1-22 of Jenkins).

19. With regard to claim 8, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal inside of a generator as discussed above in reference to claim 5. Jenkins teaches that the processor device with fewer electrical outputs than inputs could be a computer (see column 2, lines 35-51 of Jenkins). Jenkins further teaches that the computer is monitored by a human operator. Inherently, a computer monitored by a person must be outside of the generator.

20. With regard to claim 10, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal inside of a generator as discussed above in reference to claim 1. Miller also teaches the method of amplifying the electrical signal from the detector (see column 5, line 62 to column 6, line 11 of Miller).

21. With regard to claim 11, Miller teaches a method for monitoring vibration inside of a generator comprising originating a fiber optic cable and transmitting an original optic signal on the cable to a vibration sensor where the sensor modifies the original optic signal to produce a modified optical signal (see column 1, lines 63-65 and column 2, lines 24-36 of Miller). Miller also teaches that the modified optical signal is received at a detector where it is converted to an electrical signal (see column 2, lines 24-36 and column 5, line 63 to column 6, line 11 of Miller). It is inherent and well known in the art that electrical signals are sent on electrical wires. Miller does not teach that there is a seal on the wall of the generator where the seal delineates a generator side and an outside or that the electric wire is passed from the generator side to the

outside via a hermetic seal where the hermetic seal is part of the seal. Gabrys teaches the method of forming a seal on the wall of the generator where the seal delineates a generator side and an outside and he teaches the method of passing an electric wire from the generator side to the outside via a hermetic seal where the hermetic seal is part of the seal (see figure 2 and column 4, lines 47-49 of Gabrys). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the method of forming a seal on the wall of the generator and passing an electric wire from the generator side to the outside via a hermetic seal as taught by Gabrys the methods taught by Miller. Motivation for doing this is that a hermetic seal can keep a pressurized vessel sealed while allowing signals to be passed through a wall of the vessel. Using a hermetic seal is a well known method of connecting a signal internal to a sealed vessel to a device outside of a sealed vessel. Neither Miller nor Gabrys teaches that the fiber optic cable and the detector are on the generator side of the seal or that the exported wire is connected to a monitor device. Jenkins teaches the use of a vibration sensor where the fiber optic cable and the detector are located on the generator side of the seal and where the exported wire is connected to a monitoring device (see column 2, lines 1-22 and lines 35-51 of Jenkins). It would have been obvious to one of ordinary skill in the art to use the optic vibration sensor as taught by Miller in the method of monitoring vibration taught by Jenkins. Motivation to do this would be the suggestion by Jenkins to use the vibration sensor of Miller in column 2, lines 37-41 of Jenkins). Neither Miller, nor Jenkins, nor Gabrys teaches that the fiber optic cable is originated at the seal. However, the location of the origination of the fiber optic cable does not change the function performed by the method. Therefore, it would be obvious to one of ordinary skill in the art at the

time of invention to originate the fiber optic cable at any point on the generator side of the seal. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

22. With regard to claim 13, Miller teaches a device for converting an optical signal to an electrical signal comprising at least one detector and at least one fiber optic cable connected to the detector wherein the detector receives an optical signal from the fiber optic cable and where the detector converts the optical signal to an electrical signal. It is inherent and well known in the art that electrical signals are sent on electrical wires. Miller does not teach that the device is part of a connector seal or that the seal delineates a boundary between a pressure environment and a regular environment. Miller does not teach that the electrical wire spans the boundary via a hermetic seal. Gabrys teaches a connector seal comprising a seal delineating a boundary between a pressure environment and a regular environment. Gabrys also teaches that electrical wires span the boundary via a hermetic seal. It would have been obvious to one of ordinary skill in the art to use the seal of Gabrys to hermetically span the electrical wires from the detector taught by Miller. Motivation for doing this is that a hermetic seal can keep a pressurized vessel sealed while allowing signals to be passed through a wall of the vessel. Using a hermetic seal is a well known method of connecting a signal internal to a sealed vessel to a device outside of a sealed vessel. Gabrys teaches a power wire that hermetically spans the boundary and supplies power to at least one object. However, Gabrys teaches that the wire originates on the pressure environment side of the seal that provides power to an object on the regular environment of the seal rather than originating on the regular side of the seal. It would be obvious to one of ordinary skill in the art at the time of invention to have the power wire originate on the regular environment side of the seal for the purpose of supplying power to a device on the pressure side

of the boundary. Neither Miller nor Gabrys teaches that the detector is on the pressure environment side of the seal or that the electrical wire originates on the pressure environment side of the seal. Jenkins teaches the use of a vibration sensor where the detector is located on the generator (pressure environment) side of the seal and that the electrical wire connected to the detector originates on the same side as the detector (see column 2, lines 1-22 and lines 35-51 of Jenkins). It would have been obvious to one of ordinary skill in the art to use the optic vibration sensor with the detector as taught by Miller in the method of monitoring vibration taught by Jenkins. Motivation to do this would be the suggestion by Jenkins to use the vibration sensor (and thus the detector) of Miller in column 2, lines 37-41 of Jenkins).

23. With regard to claim 14, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal as discussed above in reference to claim 13. It would be obvious to one of ordinary skill in the art to use the power wire taught by Gabrys to supply power to the detector taught by Miller for the purpose of making the detector functional. The detector cannot function without a supply of power. It is well known in the art to provide power to a detector (or any object) through connection to a power supply source via an electrical wire.

24. With regard to claim 15, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal as discussed above in reference to claim 13. Miller teaches that the electrical signal is amplified (see column 5, line 63 to column 6, line 11).

25. With regard to claim 16, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal as discussed above in reference

to claim 13. For the purpose of this 35 U.S.C. 103 rejection, with regard to the above rejection of the claim under 35 U.S.C. 112 second paragraph, it will be assumed that the claim is directed to a reducer with at least one wire input to at least one fewer wire output. Jenkins also teaches the method of combining the electrical wire with at least one additional electrical wire into a device, wherein the device has fewer electrical wire outputs than inputs and wherein the signals on the electrical wires inputs can be monitored by the electrical wire outputs (see column 2, lines 1-22 of Jenkins).

26. With regard to claim 17, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal as discussed above in reference to claim 16. It would be obvious to one of ordinary skill in the art to use the power wire taught by Gabrys to supply power to the reducer taught by Miller for the purpose of making the reducer functional. The reducer cannot function without a supply of power. It is well known in the art to provide power to a reducer (or any object) through connection to a power supply source via an electrical wire.

27. With regard to claim 20, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal as discussed above in reference to claim 13. Miller also teaches that there is one optical fiber and one electrical wire upon which the vibration magnitude signal is sent after being converted from an optic to an electrical signal (see figure 5 of Miller).

28. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Miller (PN 4,321,464),*** and further in view of ***Jenkins et al. (PN 5,684,718),*** and in view of ***Gabrys et al. (PN 6,624,542)*** as applied to claim 1, and in further view of ***Rosenfeld et al. (PN 6,770,186)***.

29. With regard to claim 2, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal inside of a generator as discussed above in reference to claim 1. Niether Miller nor Jenkins nor Gabrys teach that the environment of the generator is substantially filled with hyrdrogen gas. Rosenfeld teaches a hydrogen generator that connects via hermetic seals to a tank of hydrogen gas (see column 10, line 64 to column 11, line 3 of Rosenfeld). It would have been obvious to one of ordinary skill in the art to use the method taught by Miller, Jenkins, and Gabrys on a hydrogen generator because hydrogen is a volatile gas that requires extreme care. The method of Miller, Jenkins, and Gabrys is desirable to use on a hydrogen generator because the method uses hermetic seals which would prevent leaking of the volatile gas.

30. Claims 4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Miller (PN 4,321,464),*** and further in view of ***Jenkins et al. (PN 5,684,718),*** and in view of ***Gabrys et al. (PN 6,624,542)*** as applied to claims 1 and 3 above, and in further view of ***Sanders et al. (PN 5,118,189)***.

31. With regard to claims 4, and 9, Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal inside of a generator as discussed above in reference to claims 1 and 3. Neither Miller, Jenkins, nor Gabrys teach the use of a preamplifier nor that the detector preamplifies the signal. Sanders teaches that a detector can comprise a preamplifier (see column 6, lines 37-42 of Sanders). It would have been obvious to one of ordinary skill in the art to use the detector comprising a preamplifier as taught by Sanders as the detector taught by Miller in view of Jenkins and in further view of Gabrys for the purpose increasing the magnitude of a small signal. Miller suggests using a PIN diode as a

detector in the device and Sanders teaches that a detector comprising a PIN diode can also include a preamplifier (see column 6, lines 37-42 of Sanders and column 5, line 65 to column 6, line 11).

32. Claims 6, 7, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***Miller (PN 4,321,464),*** and further in view of ***Jenkins et al. (PN 5,684,718),*** and in view of ***Gabrys et al. (PN 6,624,542)*** as applied to claims 5 and 16 above, and in further view of ***Kurihara et al. (PN 4,302,813)***.

33. With regard to claims 6, 7, 18, and 19 Miller in view of Jenkins and in further view of Gabrys teach a method for converting a fiber optical signal to an electrical signal inside of a generator as discussed above in reference to claims 5, 13, and 16. Neither Miller nor Jenkins nor Gabrys teaches that the reducer device is a multiplexer or that a control signal spans the hermetic seal to control at least one device. Kurihara teaches a vibration diagnosis device in which several vibration sensor inputs enter into a multiplexer and where only one signal is outputted (see figures 10 and 11 and column 14, lines 23-64 of Kurihara). The multiplexer is controlled by a control signal source (reference number 208 in figure 11). Jenkins teaches that the vibration diagnosis device is internal to the generator (see column 2, lines 35-51 of Jenkins). It would have been obvious to one of ordinary skill in the art to use the multiplexer with the control source taught by Kurihara as the reducer device taught by Miller in view of Jenkins and Gabrys for the purpose of successively switching and introducing a plurality of vibration signals (see column 14, line 55 to column 15, line 5 of Kurihara). Also, the method taught by Jenkins involves both vibration signals and load signals. A multiplexer allows for both types of signals to be switched and introduced successively. Kurihara does not explicitly teach that the control

signal originates on the regular environment side of the seal. It would have been obvious to one of ordinary skill in the art at the time of invention to originate the control signal on the regular side of the seal for the purpose of being able to control the multiplexer from a source outside of the generator that is accessable. Also, Kurihara shows the vibration diagnosing device as part of a larger system (in figure 10). The control signal is not seen in this figure. Therefore, it is reasonable to assume that the control signal originates from a source external to the system shown in figure 10 and would therefore make it obvious to make the control signal originate from the regular environment side of the seal which is external from the device on the pressure environment side of the seal.

34. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Miller (PN 4,321,464),*** and further in view of ***Jenkins et al. (PN 5,684,718),*** and in view of ***Gabrys et al. (PN 6,624,542)*** as applied to claim 11, and in further view of ***Weber (PN 4,505,991)***.

35. With regard to claim 12, Miller in view of Jenkins and in further view of Gabrys teach a method for monitoring vibration inside of a generator as discussed above in reference to claim 11. Miller in view of Jenkins and in view of Gabrys teaches that both originating and receiving tasks can be preformed at the seal. However, neither Miller nor Jenkins nor Gabrys teach a method wherein multiple seals are used on the generator, wherein tasks are shared between the multiple seals. Weber teaches a generator device with multiple hermetic seals on the generator (see figure 1 of Weber) that share different tasks. It would have been obvious to one of ordinary skill in the art at the time of invention to use a plurality of the seals taught by Miller in view of Jenkins and in view of Gabrys as taught by Weber to share the tasks of originating and receiving

as taught by Miller in view of Jenkins and in view of Gabrys. Motivation to do this would be to use multiple seals as an input and output of the generator as seen in figure 1 of Weber.

Conclusion

36. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. ***Miller (PN 4,321,464)*** teaches a device for measuring a vibration of an optical fiber.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek L Dupuis whose telephone number is (571) 272-3101. The examiner can normally be reached on Monday - Friday 8:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derek L. Dupuis
Patent Examiner
Group Art Unit 2883

Frank G. Font
Supervisory Patent Examiner
Technology Center 2800

DLD